

FM/AM TUNER

KT-6050

INSTRUCTION MANUAL

KENWOOD CORPORATION

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.

We appreciate your patronage and take pride in the long tradition of quality components that our company represents.

So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

Unpacking

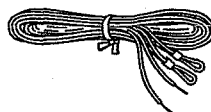
Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

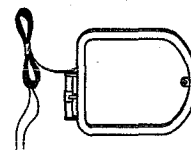
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories

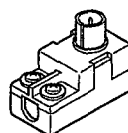
FM indoor antenna 1



AM Loop antenna 1



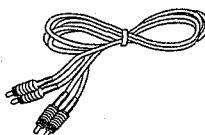
75Ω/300Ω
antenna adaptor 1



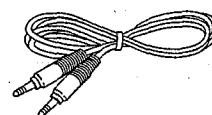
Loop antenna stand 1



Audio cord 1



System control cord 1



Contents

Caution: Read the pages marked  carefully to ensure safe operation.

Introduction	2
⚠ Before applying power	3
⚠ Safety precautions	3
⚠ IMPORTANT SAFEGUARDS	4
System connections	6
Antenna connections	8
Controls and indicators	10
Operation of remote control unit (Optional)	11
Receiving broadcasts	12
Auto tuning	12
Manual tuning	13
Receiving broadcast stations and storing then in memory (preset operation)	14

Tuning in a preset station	14
Automatic Memorizing of RDS Broadcasts (RDS AUTO MEMORY)	16
Summoning Memorized Channels	16
Searching for a desired program type	17
Searching for the best frequency	18
Useful functions for FM broadcast reception	19
Reception using timer	20
Programming a desired station	20
Receiving a desired station only once	21
Receiving stations in the programmed sequence	21
In case of difficulty	22
Specifications	23

Before applying power



Caution: Read this page carefully to ensure safe operation.

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on 240 V AC only.

Units shipped to Europe are designed for operation on 230 V AC only.

For the United Kingdom

Important!

Units shipped to the U.K. are designed for operation on 240 volts AC only.

The mains plug must be removed from the wall socket prior to any internal examination.

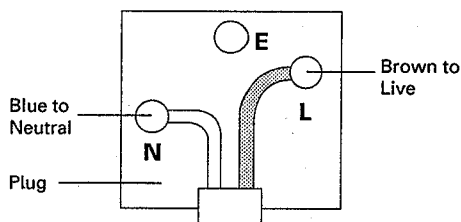
The wires in this mains lead are coloured in accordance with the following code:

Blue Neutral
Brown Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour Plug terminal marking

Blue N or Black
Brown L or Red



Notes:

1. If a 13-amp plug is used, this must be fitted with a 13-amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

For other countries

Important!

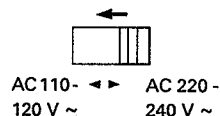
Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

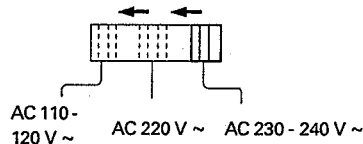
This unit operates on 110-120 or 220-240 volts AC. The AC voltage selector switch Type A or Type B on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch

Type A



Type B



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

Safety precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

IMPORTANT SAFEGUARDS

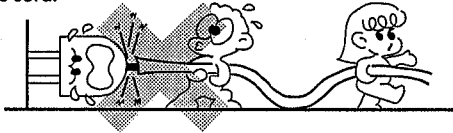
 **Caution:** Read this page carefully to ensure safe operation.

Please read all of the safety and operating instructions before operating this appliance. Adhere to all warnings on the appliance and in the instruction manual. Follow all the safety and operating instructions. These safety and operating instructions should be retained for future reference.

1. Power sources – The appliance should be connected to a power supply only of the type described in the instruction manual or as marked on the appliance. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For appliances intended to operate from battery power, or other sources, refer to the instruction manual.

2. Power-cord protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

Never pull or stretch the cord.

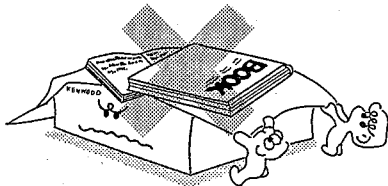


3. CAUTION – Polarization – This appliance may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

4. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the appliance and to protect it from overheating, and these openings must not be blocked or covered. The appliance should be situated so that its location or position does not interfere with its proper ventilation.

To maintain good ventilation, do not put records or a tablecloth on the appliance. Place the appliance at least 10 cm away from the walls.

Do not use the appliance on a bed, sofa, rug or similar surface that may block the ventilation openings. This appliance should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

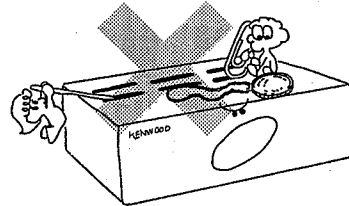


5. Water and moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

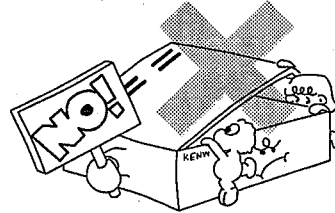
6. Temperature – The appliance may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

7. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

8. Electric shock – Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this appliance, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this appliance.



9. Enclosure removal – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



10. Magnetic fields – Keep the appliance away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.

11. Cleaning – Unplug this appliance from the wall outlet before cleaning. Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzene, etc. to clean the cabinet. Use a clean dry cloth.

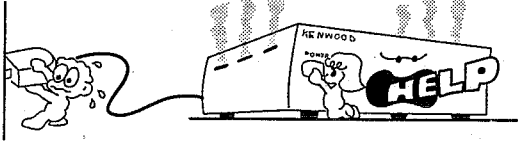
12. Accessories – Do not place this appliance on an unstable cart, stand, tripod, bracket, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the appliance. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



13. Lightning – For added protection for this appliance during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the appliance due to lightning and power-line surges.

14. Abnormal smell – If an abnormal smell or smoke is detected, immediately turn the power OFF and unplug the appliance from the wall outlet. Contact your dealer or nearest service center.

POWER OFF!



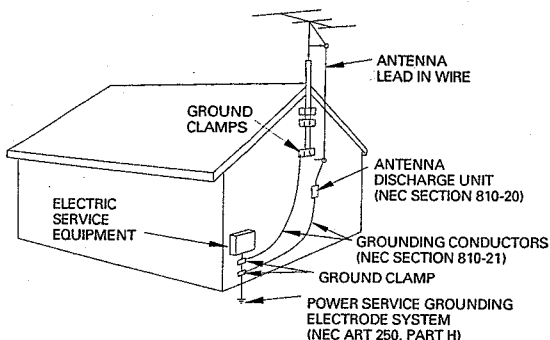
15. Damage requiring service – The appliance should be serviced by qualified service personnel when:

- A.** The power-supply cord or the plug has been damaged.
- B.** Objects have fallen, or liquid has been spilled into the appliance.
- C.** The appliance has been exposed to rain or water.
- D.** The appliance does not appear to operate normally by following the instruction manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to its normal operation.
- E.** The appliance has been dropped, or the enclosure damaged.
- F.** The appliance exhibits a marked change in performance.

16. Servicing – The user should not attempt to service the appliance beyond that described in the instruction manual. All other servicing should be referred to qualified service personnel.

17. Outdoor antenna grounding – If an outside antenna is connected to the appliance, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Article 810 of the National Electrical Code ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.

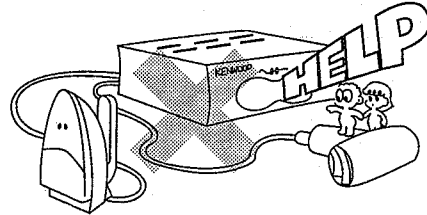
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



NEC – NATIONAL ELECTRICAL CODE

18. Power lines – An outside antenna system should not be located in the vicinity of overheated power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

19. AC outlets – Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical appliances, such as an iron or toaster, to it to prevent fire or electric shock.



20. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

21. Attachment – Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.

22. Replacement parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety check – Upon completion of any service or repairs to this appliance, ask the service technician to perform safety checks to determine that the appliance is in proper operating condition.

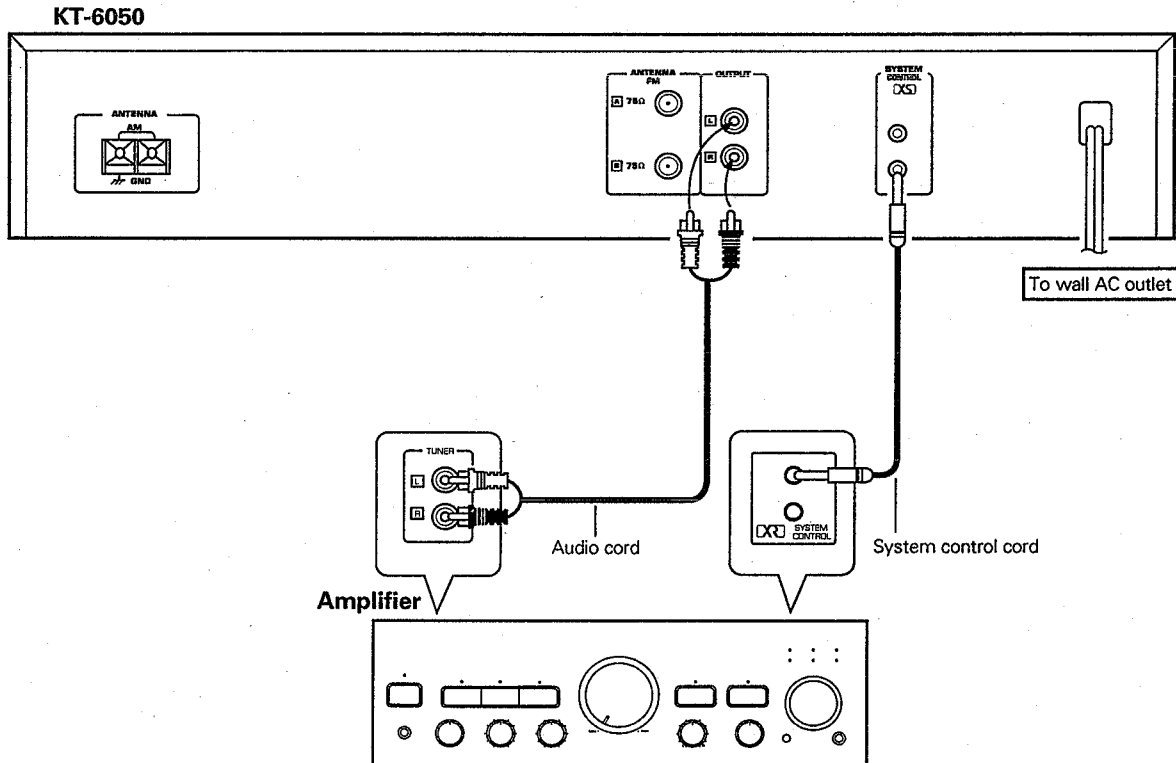
Notes:

- 1. Item 3 is not required except for grounded or polarized equipment.
- 2. Item 17 and 18 are not required except for units provided with antenna terminals.
- 3. Item 17 complies with UL in the U.S.A.

System connections

Make connection as shown below. When connecting the related system components, refer also to the instruction manuals of the related components.

Do not plug in the power lead until all connections are completed.

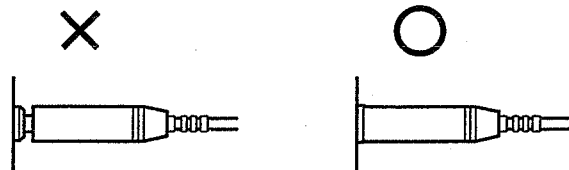


System control connection

By connecting this unit to an amplifier equipped with KENWOOD system control terminals, using the amplifier's remote control, various system operations (such as switching the power supply ON/OFF, band switching preset call, etc.) are possible. For details refer to your amplifier's instruction manual.

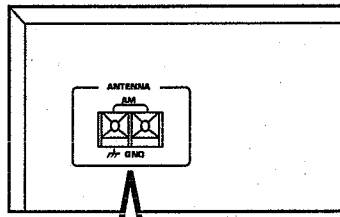
If your amplifier is not equipped with the SYSTEM CONTROL terminals, do not connect anything to any SYSTEM CONTROL terminal. Do not connect the unit in any system configuration other than specified.

- Be sure to insert the system control cord plugs fully into the SYSTEM CONTROL terminals.
- If the system control cord and audio cords are not connected properly, the automatic system governing remote control and system functions will not operate.



Notes:

1. Connect all cords firmly. If connections are loose, there could be loss of sound or noise produced.
2. When plugging and unplugging connection cords, be sure to first remove the power cord from the AC outlet.
Plugging/unplugging connection cords without removal of the power cord can cause malfunctions or damage to the unit.

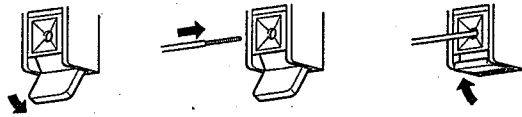


Connection method to each antenna terminal

① Push lever.

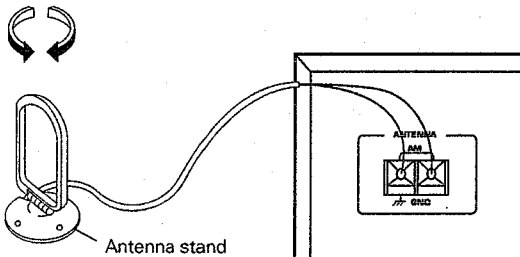
② Insert cord.

③ Return lever.



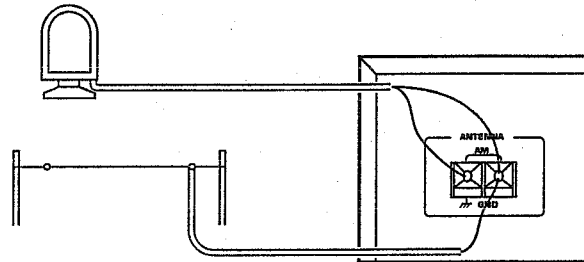
■ AM loop antenna connection

The supplied antenna is for indoor use. Place it as far as possible from the main system, TV set, speaker cords and power cord, and set it to a direction which provides the best reception.



■ AM outdoor antenna connection

If the reception is poor when the AM loop antenna is used, distribute a vinyl-coated wire of more than 6 meters outdoors, without disconnecting the loop antenna.



Antenna connections

■ FM indoor antenna connection

<p>①</p> <p>Supplied FM indoor antenna</p> <p>1. To loosen screw</p> <p>2. Insert antenna cable.</p> <p>3. To tighten screw</p> <p>Antenna adaptor</p>	<p>②</p> <p>Rear panel of unit</p> <p>ANTENNA FM</p> <p>75Ω</p> <p>75Ω</p> <p>Plug securely into FM ANTENNA terminal.</p>	<p>③</p> <p>1. Find the position that provides best reception.</p> <p>2. Fix two ends.</p> <p>Set to receiving mode.</p> <p>Unit</p>
--	---	--

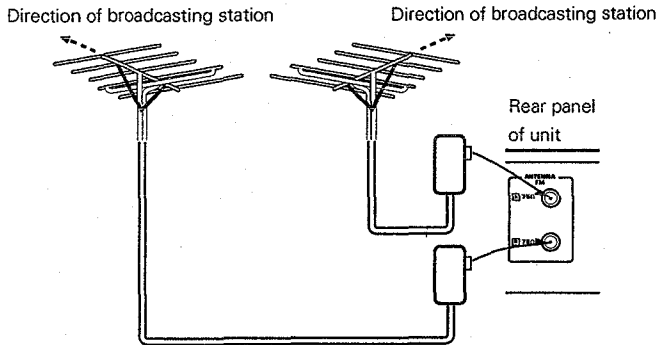
■ 75Ω coaxial cable connection

<p>① Arrange the coaxial cable as illustrated.</p> <p>RG-6 (5C-2V) or RG-59 (3C-2V)</p>	<p>② Open the antenna adaptor. Open the claws with the fingers to release the lock and pull out the cover.</p> <p>Claw</p>	<p>③ Remove the inner conductor from the groove of pole A and insert it in the groove of pole B.</p> <p>Pole A</p> <p>Pole B</p>
<p>④ Insert into the slit on the clip. Fasten the bands A and B, using a pair of pliers.</p> <p>Band A</p> <p>Band B</p>	<p>⑤ Close the cover.</p> <p>75Ω</p> <p>75Ω</p> <p>300Ω</p>	<p>⑥ Connect the adaptor to the antenna terminal.</p> <p>Rear panel of unit</p> <p>ANTENNA FM</p> <p>75Ω</p> <p>75Ω</p>

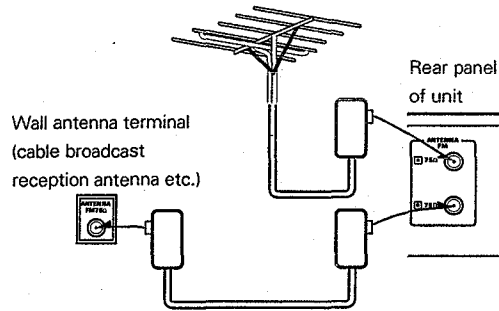
■ FM outdoor antenna connection

Run a 75Ω coaxial cable from an outdoor antenna and connect to this unit's "FM 75Ω" terminal.

When using two outdoor antennas

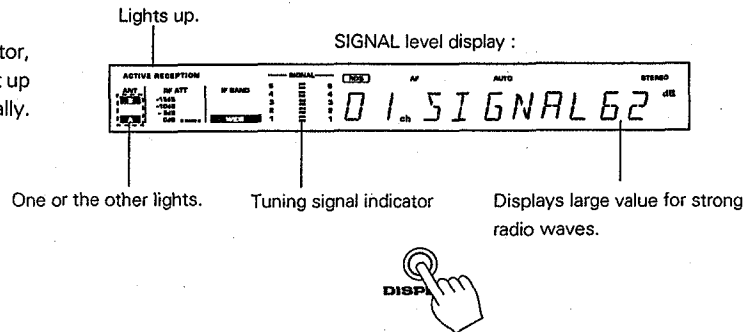
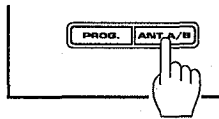


When using an outdoor antenna with an already established antenna



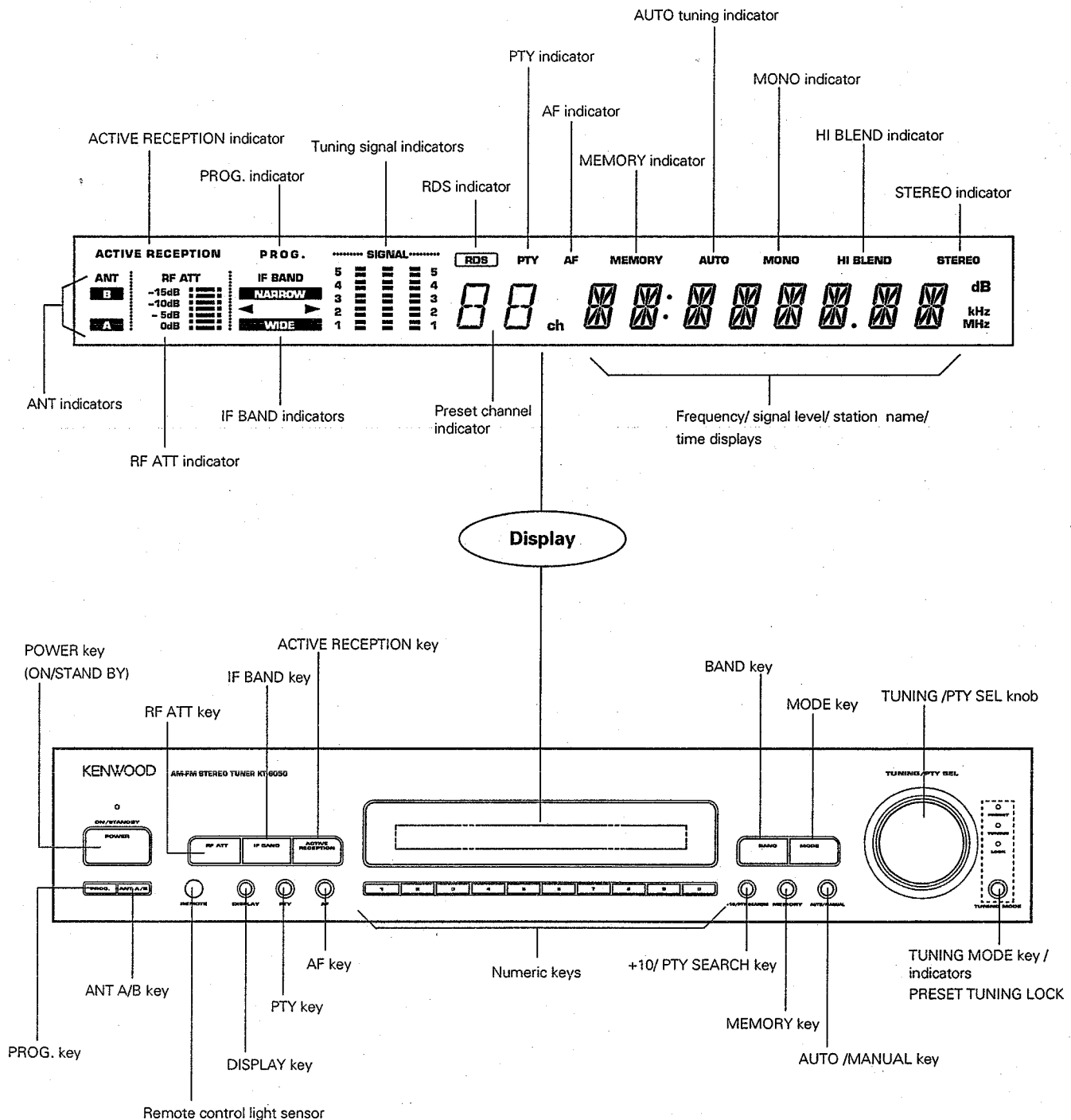
FM ANT A/B switch:

By pressing the ACTIVE RECEPTION key to illuminate the indicator, ANT A/B is switched automatically. However, according to the set up and reception status of the antenna, A or B can be switched manually. (See page 19)



- For the installing direction of the FM exterior antenna, set in the position where the deflection of the tuning signal indicator shows the largest value.
- Press the **DISPLAY** key to view the signal level. (See page 15)

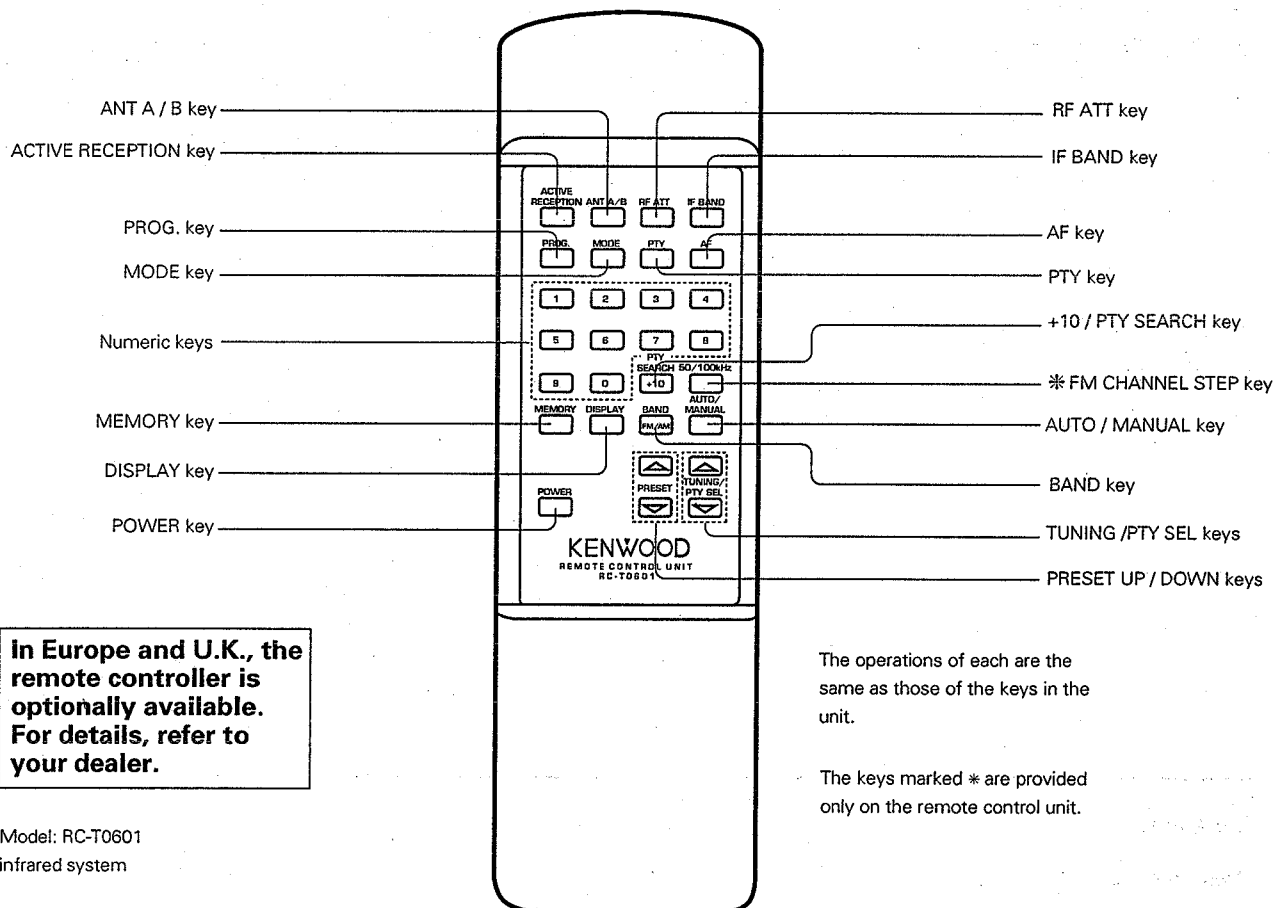
Controls and indicators



STAND BY mode of POWER switch

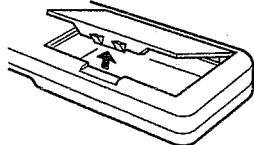
When the power cord of this system is plugged into an AC outlet, the STAND BY indicator lights up regardless of the ON/OFF setting of the POWER switch. This indicates that a small amount of current is being supplied to the unit to back up the memory contents. This mode is referred to as the Stand By mode. While the STAND BY indicator is lit, the power of the system can be switched ON/OFF from the remote control unit. (In Europe and U.K., the remote controller is optionally available.)

Operation of remote control unit (Optional)

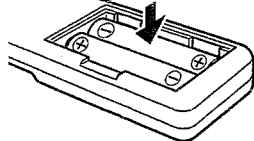


■ Loading batteries

1 Remove the cover.

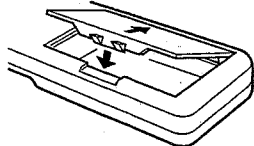


2 Insert batteries.



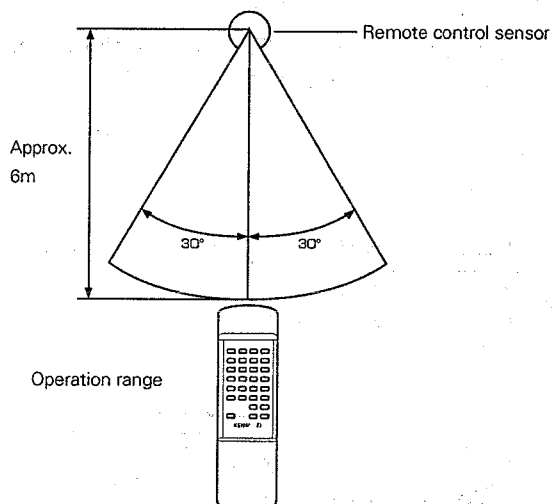
Insert two AA-size (R6) batteries as indicated by the polarity marking.

3 Close the cover.



■ Operation procedure

Operating range



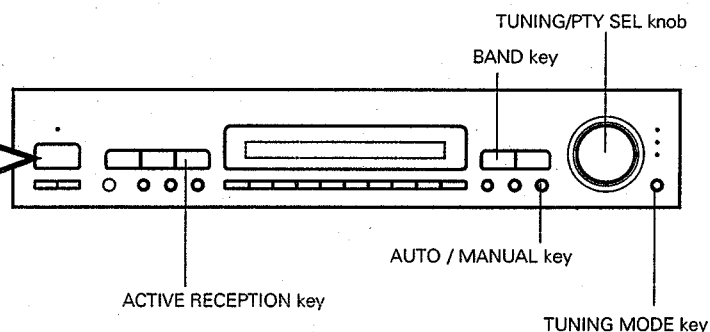
- When successively pressing two operation keys on the remote control unit, press each key securely reserving an interval of more than 1 second for each press.

Notes:

- The supplied batteries are intended for use in operation checks. Therefore, their lives may be shorter than ordinary batteries.
- When the remote-controllable distance gets shorter than before, replace both batteries with new ones.
- Malfunction may occur if direct sunlight or the light of a high-frequency fluorescent lamp enters the remote control light sensor. In such a case, change the system installation position to prevent the malfunction.

Receiving broadcasts

Turning ON the power



■ Auto tuning

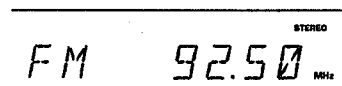
1 Set your amplifier's input selector to **TUNER**.

2 Select the broadcast band.

The bands are switched as follows every time the **[BAND]** key is pressed.



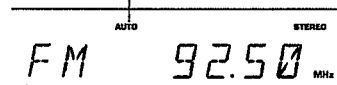
FM ← → AM



3 Set the tuner to auto tuning mode.

Press the **AUTO / MANUAL** key.

Check that the indicator is lit.



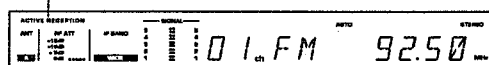
Press the key to select the auto (AUTO lighted) or manual (not lighted) mode.

4 Turn the **ACTIVE RECEPTION** ON.

The tuner automatically sets the optimum conditions for receiving FM broadcasts. (See page 19.)



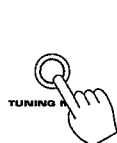
Lights.



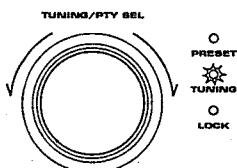
- This key does not function when AM broadcasts are received.

5 Tune in the desired station.

Main unit

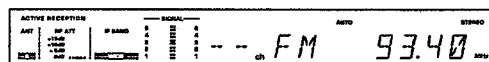


Set to TUNING mode.



Turn gently to the left or right.

Remote control unit



FM CHANNEL STEP (Only with separately sold remote control units):



For each pressing of the 50/100kHz key, the FM frequency of the CHANNEL STEP (interval) is switched 50kHz-100kHz. This is convenient for responding to different frequencies (transmitted radio waves) corresponding to a particular country or region.

- To tune in a higher frequency, gently turn the TUNING/PTY SEL knob to the right.
- To tune in a lower frequency, gently turn the TUNING/PTY SEL knob to the left.
- The tuner automatically scans the frequencies in sequence and stops at the frequency of the next broadcast station.

Manual tuning

Use manual tuning to tune in stations with signals that are too weak to be detected during auto tuning.

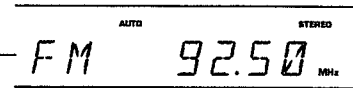
1 Set your amplifier's input selector to TUNER.

2 Select the broadcast band.



The bands are switched as follows every time the **BAND** key is pressed.

FM ←→ AM

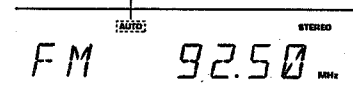


3 Set the tuner to manual tuning mode.

Press the **AUTO / MANUAL** key.



Goes out.



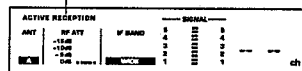
Press the key to select the auto (AUTO lighted) or manual (not lighted) mode.

4 Turn the ACTIVE RECEPTION ON.

The tuner automatically sets the optimum conditions for receiving FM broadcasts. (See page 19.)



Lights.



- This key does not function when AM broadcasts are received.

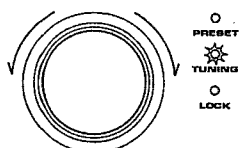
5 Tune in the desired station.

Main unit



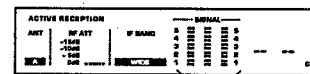
Set to TUNING mode.

TUNING/PTY SEL



Turn gently to the left or right.

Remote control unit



Tuning signal indicator

Tuning signal indicator

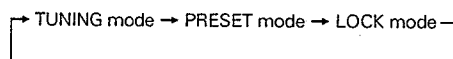
When you turn the TUNING/PTY SEL knob to tune in a broadcast, the left or right tuning signal indicator will light red when you near the tuning point of a broadcast station. When the tuning point is reached, the white center indicator lights according to the strength of the signal. This sequence is reversed as you move farther away from the station's tuning frequency. When tuning in an AM station, only the white center indicator lights according to the signal strength when the broadcast frequency is reached.

Note:

If the signal is weak, the left and right step displays may show only four points or less, or the left and right step displays may show unequal numbers of steps.

TUNING MODE key operation

Each press of the TUNING MODE key changes the function of the TUNING / PTY SEL knob.



The indicator of the selected mode lights.



In LOCK mode, the frequency is fixed and does not change even if the TUNING / PTY SEL knob is operated.

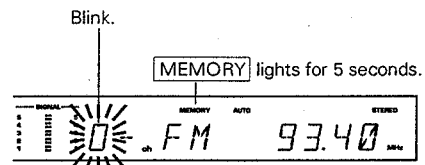
■ Receiving broadcast stations and storing them in memory (preset operation)

Up to 39 stations can be preset at random regardless of broadcast band.

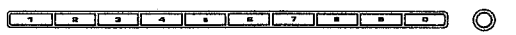
Having conducted "RDS AUTO MEMORY" on page 19, the memory completely clears, enter the new channels.

1 Tune in the desired station. (See page 12 ~ 13.)

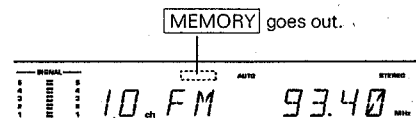
2 Press the **MEMORY** key.



3 Memorize (preset) the station.



Press while **MEMORY** is lit.



The selected number is displayed.
(01~39)

Input examples:

To preset the station in channel 10 : **[+10]** , **[0]**

To preset the station in channel 39 : **[+10]** , **[+10]** , **[+10]** , **[9]**

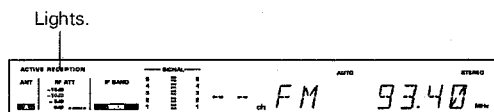
- When preset is to be continued, repeat steps 1 to 3.
- If you press a number key which already contains a preset station, that station is replaced by the currently selected station.

■ Tuning in a preset station

1 Turn the **ACTIVE RECEPTION** ON.

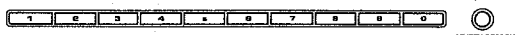
The tuner automatically sets the optimum conditions for receiving FM broadcasts. (See page 19.)

- This key does not function when AM broadcasts are received.



2 Select the desired station.

Press the corresponding numeric key.

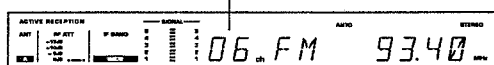


Input examples:

To receive channel 6 : **[6]**

To receive channel 23 : **[+10]** , **[+10]** , **[3]**

The selected number is displayed.

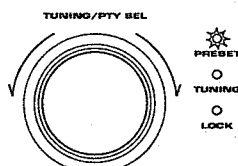


To scan the preset stations in sequence :

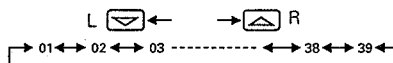
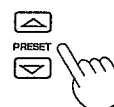
Main unit



Set to PRESET mode.



Remote control unit



RDS (Radio Data System)

RDS is a system which transmits useful information (digital data) for FM broadcasts together with the broadcast signal. Tuners and receivers designed for RDS reception can extract the information from the broadcast signal for use with various functions such as automatic display of the station name.

This unit is equipped with the following functions utilizing RDS data:

(In some areas, some functions cannot be activated and some function names/displays are different as follows.)

PTY (Program Type Identification) Search : (See page 17.)

The tuner automatically searches for a station which is currently broadcasting a specified program type (genre).

AF (Alternative Frequencies) Search : (See page 18.)

When a weak signal is received, the tuner automatically searches for alternative frequencies broadcasting the same program and selects the best signal.

PS (Program Service Name) Display : (refer to the table below.)

When an RDS broadcast is received, the station name is automatically displayed.

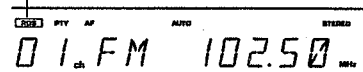
CT (Clock Time) Display : (refer to the table below.)

Some RDS stations transmit clock data along with the broadcast signal. When the CT display is selected by the **DISPLAY** key, the time and signal level are displayed.

RDS AUTO MEMORY : (See page 16)

Automatically selects only those channels responding to RDS, sorts them into name order and places them into memory.

The **RDS** indicator lights when an RDS broadcast (signal) is received.



DISPLAY key

When receiving FM broadcasts, for each pressing of the **DISPLAY** key, the display content can be viewed. The display returns to the original display after about 5 seconds.



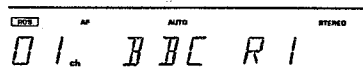
Display mode priority ranking

When an RDS broadcast is received : ① → ② → ③

When a non-RDS broadcast is received : ② → ③

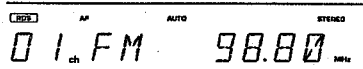
① PS (Program Service Name) Display :

When an RDS broadcast is received, the station name is automatically displayed.
When PS data cannot be transmitted, move to the frequency display in ②.



② Frequency Display :

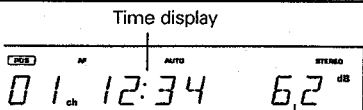
The frequency of the current station is displayed.



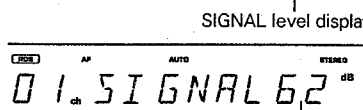
③ CT (Clock Time) Display :

When receiving RDS broadcasts, the time and signal level are displayed (Fig. A).
When there is no clock data, only the signal level is displayed (Fig. B).

(Fig.A)



(Fig.B)

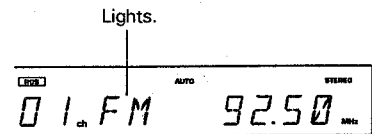


Displays a large value for a strong radio wave.

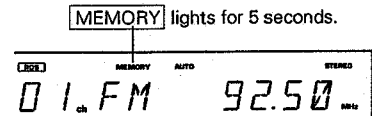
■ Automatic Memorizing of RDS Broadcasts (RDS AUTO MEMORY)

Automatically selects only those channels responding to RDS, sorts them into name order and places them into memory. (max. 39ch)

1 Set the broadcast band to FM.



2 Press the MEMORY key.

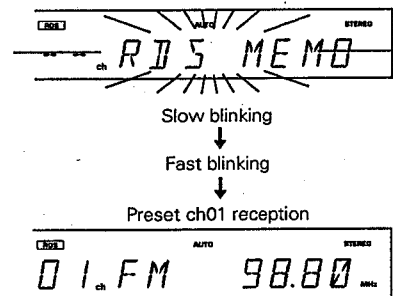


3 Memorize (preset) the station.

Press the AF key.



Press while **MEMORY** is lit.



ch = channels

- After a few minutes, only those channels responding to RDS are received and placed into memory in order from 01 ch. (max. 39ch)
- The channels already preset are completely cleared, and replaced with the new channels.
- When there are less than 39 RDS channels, the remaining channel data is memorized as 87.5MHz.

■ Summoning Memorized Channels

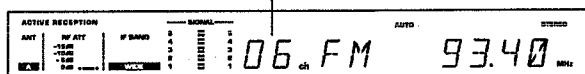
1 Turn the ACTIVE RECEPTION ON.

The tuner automatically sets the optimum conditions for receiving FM broadcasts. (See page 19.)



2 Select the desired station.

The selected number is displayed.



Press the corresponding numeric key.



Input examples:

To receive channel 6 : **[6]**

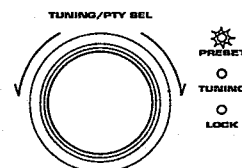
To receive channel 23 : **[+10]** , **[+10]** , **[3]**

To scan the preset stations in sequence :

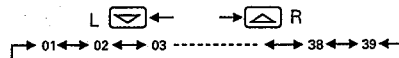
Main unit



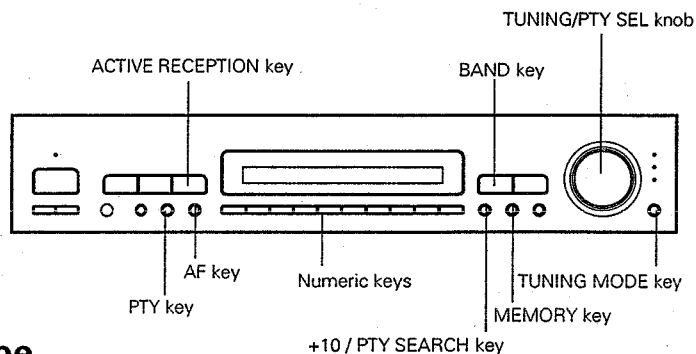
Set to PRESET mode.



Remote control unit



Refer to page 15 for a description of the RDS feature.

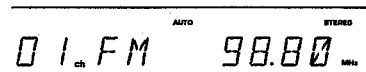


■ Searching for a desired program type

<PTY (Program Type Identification) Search>

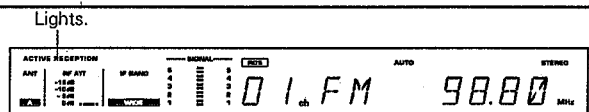
By specifying the type of program (genre) you want to listen to, the tuner automatically searches for a station which is currently broadcasting a program of the specified type.

1 Set the broadcast band to FM.



2 Turn the ACTIVE RECEPTION ON.

(See page 19.)



3 Set the select mode.

Press the PTY key.



When an RDS broadcast is received, the program type is shown on the display. If no PTY data is available or if the station is not an RDS station, "NONE" is displayed.



4 Select the desired program type.

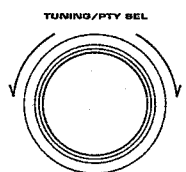
Select while "PTY" is lit.

A: Use the numeric keys to directly select one of the ten program types numbered **1** to **0**.



or

B: Turn the TUNING/PTY SEL knob to sequentially select from the fifteen available program types. Turn the knob slightly to the left or right, then release the knob when the desired program type is displayed.



Select while "PTY" is lit.

Remote control unit

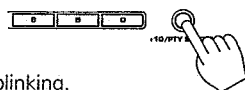


(B)	(A)	Program Type Name	Display
	1	Pop Music	POP M
	2	Rock Music	ROCK M
	3	* M.O.R. Music	M.O.R. M
	4	Light Classical	LIGHT M
	5	Serious Classical	CLASSICS
	6	Other Music	OTHER M
	7	News	NEWS
	8	Current Affairs	AFFAIRS
	9	Information	INFO
	0	Sport	SPORT
	-	Education	EDUCATE
	-	Drama	DRAMA
	-	Culture	CULTURE
	-	Science	SCIENCE
	-	Varied	VARIED

*M.O.R. Music (Middle of the Road Music)

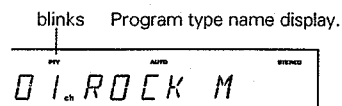
5 Start the search.

Press while "PTY" is lit.

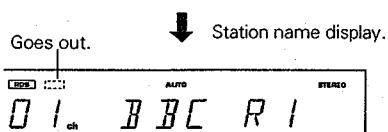


- No sound is heard while "PTY" is blinking.
- If a program of the desired type cannot be found, "NO PROG" is displayed, then after several seconds the display returns to the original display.
- If a program of the desired type is found, that program is received and the program type name display changes temporarily to the frequency display and then to the station name display.

Display while the tuner is searching.
When searching for a Rock Music broadcast.



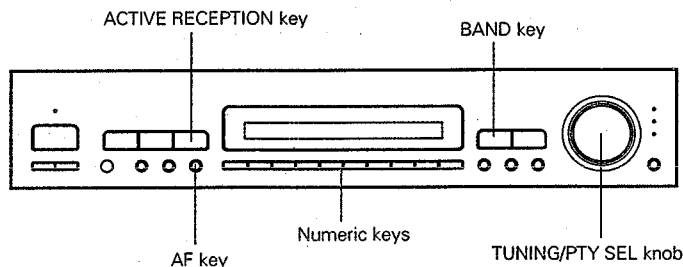
When a station is received.



To change to a different program type:

Repeat steps 3 ~ 5.

Refer to page 15 for a description of the RDS feature.

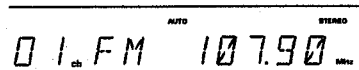


■ Searching for the best frequency

<AF (Alternative Frequencies) Search>

If more than one FM station is broadcasting the same program, this function will automatically select the station offering the strongest signal or the least interference. (The AF feature will not function if the **RDS** indicator is not lit.)

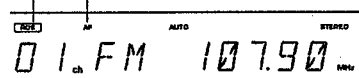
1 Set the broadcast band to FM.



2 Receive an RDS broadcast station.

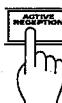
- Tune in the desired station and verify that the **RDS** indicator lights.
- After a short time, the "AF" indicator lights.
After verifying that the "AF" indicator is lit, proceed to the next step.

Check that the indicator is lit.

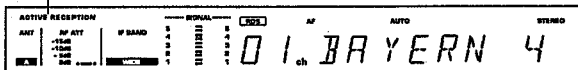


3 Turn the ACTIVE RECEPTION ON.

(See page 19.)



Lights.

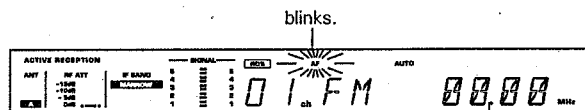


4 Start the search.

Press the AF key.

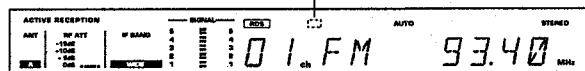


Display while the tuner is searching.



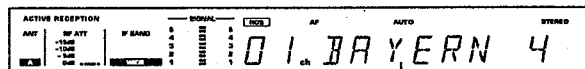
The frequency changes continuously.

Goes out.



When a station is received.

After about 5 seconds



Station name display

- Scanning (station searching) starts.
- No sound is heard while searching is being carried out.
- When a station is found, the "AF" indicator goes out.
- After several seconds, the station name is displayed.

AF (Alternative Frequencies) Feature

- With some stations, it may take some time for the "AF" indicator to light.
- To obtain the best reception conditions, we recommend waiting a few minutes after the "AF" indicator lights before pressing the **AF** key.
- It is useful to use the number keys to preset (memorize) stations received with this AF function. (See page 14.)
- The selected frequency may vary depending on the signal conditions.
- There are some RDS stations which do not support this AF function. For such stations, the "AF" indicator does not light.

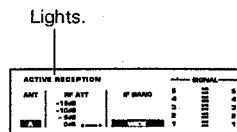
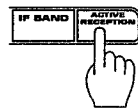
Useful functions for FM broadcast reception

Each time the key is pressed, the operation mode changes.

ACTIVE RECEPTION key

When you press the **ACTIVE RECEPTION** key, the "ACTIVE RECEPTION" indicator lights in the display. If you perform a tuning operation or recall a preset station in this mode, the tuner will automatically switch the **ANT A/B**, **RF ATT**, **IF BAND** and auto stereo/**HI BLEND** /**MONO** functions to obtain the optimum reception conditions for the signal being received.

Normally leave the **ACTIVE RECEPTION** mode ON.



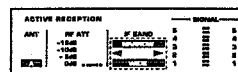
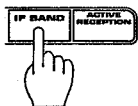
Lights.

IF BAND key

This function lets you set the intermediate frequency pass band to **WIDE** (wide band), or **NARROW** (narrow band).

WIDE : Normally set the **IF BAND** to **WIDE**. This setting allows reception of good quality sound with minimal distortion.

NARROW : If signal reception is poor due to interference from a neighboring station when the **IF BAND** is set to **WIDE**, change the **IF BAND** setting to **NARROW**. (With **ACTIVE RECEPTION** ON, when there is interference from neighboring channels "◀▶" illuminate.)



One or the other lights.

MODE key (auto stereo/HI BLEND/MONO)

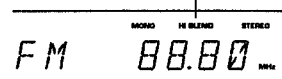
Auto stereo : Normally set this function to auto stereo. The tuner automatically switches modes according to the type of broadcast (stereo or monaural). (When a monaural broadcast is received, the "MONO" indicator does not light.)

HI BLEND : When receiving a stereo broadcast which contains much noise, change the setting to **HI BLEND**. The broadcast continues to be received in stereo but the noise level is reduced.

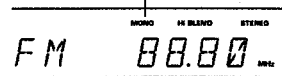
MONO : If noise is noticeable even at the **HI BLEND** setting, change the setting to **MONO**. The broadcast is received in monaural and the noise level is further reduced.



Lights when HI BLEND mode is turned on.



Lights when MONO mode is turned on.

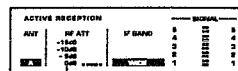


RF ATT switch

When there is an adjacent channel with strong radio waves, **RF reciprocal modulation**, mixed modulation distortion easily occurs. By switching the **RF ATT** switch from **0dB** to **-5**, **-15dB** the **RF reciprocal modulation** and mixed modulation can be minimized.

0dB : Usually set to "0dB". With the **ACTIVE RECEPTION** switched ON, when receiving channel broadcasts, if the radio waves are strong, automatically **ATT** is switched in 2.5 dB steps from between **0dB** to **-15dB**.

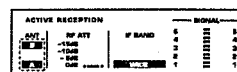
-15dB : When receiving cable broadcasts, when the radio waves are strong, select a high number.



Usually set to 0dB.

ANT A/B SWITCHING key :

When using 2 exterior antennas, or, an external antenna with an already established antenna (cable broadcast reception antenna etc.), aligning to the respective set up and reception statuses, **A** or **B** can be switched.



One or the other lights.

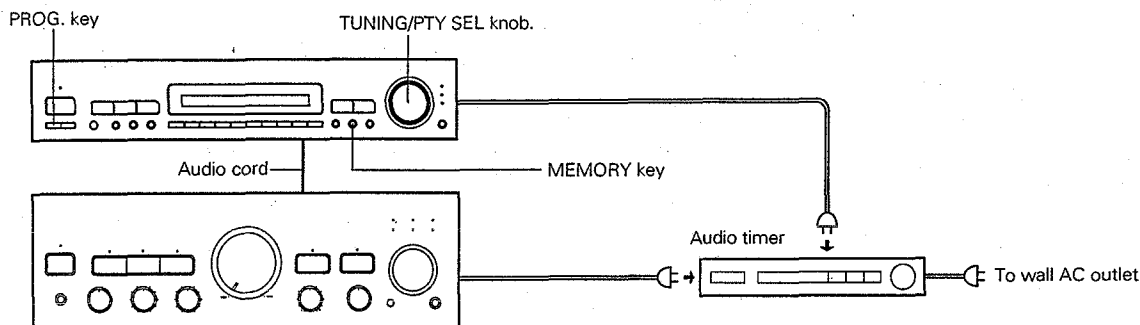
Memory backup

Even if the power cord is unplugged from the AC outlet, the preset memory contents will be backed up for three days.

Last channel memory

When the power is turned ON or the **BAND** key is pressed to switch the band (**FM** or **AM**), the last station previously received is automatically tuned in.

Reception using timer



■ Programming a desired station

You can program up to three desired broadcast stations. This operation can be carried out even in the **STAND BY** mode. By using an audio-timer (sold on market), 3 channels can be recorded in the users' absence.

1 Preset the desired station. (See page 14.)

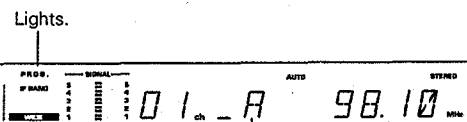
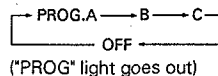
- For programming, to use the preset channels, it is necessary to preset the chosen channels in advance.

2 Set the tuner to program set mode.

① Select the mode to be programmed.



Each press of the key changes the setting in the following sequence.



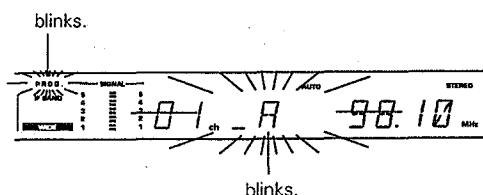
Example: When "A" is lit

- Select program A, B, or C.

② Press the MEMORY key.



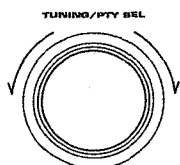
Press while "A" is lit



3 Memorize (preset) the station.

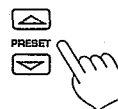
① Select the preset channel.

(Select the desired station.)

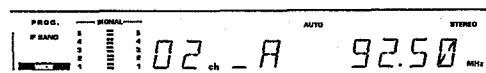


Main unit

Remote control unit



② Press the PROG. key.



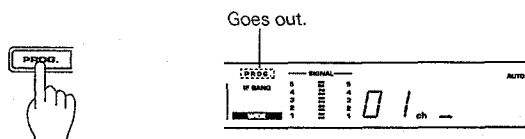
When continually setting other programs (B, C), repeat steps 2, 3.

- In the initial setting, programs A, B, C together with the preset 01ch are programmed.

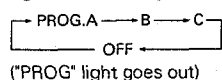
By using a commercially available audio timer to turn the power on and off, the last received channel or the programmed channels will be selected automatically.

■ Receiving a desired station only once

1 Set the PROGRAM setting to OFF.



Each press of the key changes the setting in the following sequence.



- Press so that the PROG. indicator goes off.

2 Turn in the desired station.

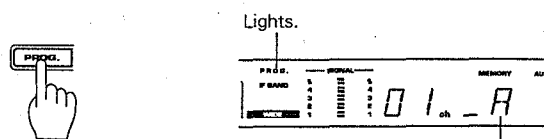
3 Set the timer.

- Leaving the tuner's POWER switch set to ON, turn off the AC power using the timer's power switch.

■ Receiving stations in the programmed sequence

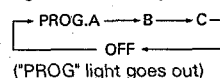
Preparation: Program the desired station(s) beforehand.

1 Select the desired PROGRAM setting.



Example: When "A" is lit.

Each press of the key changes the setting in the following sequence.

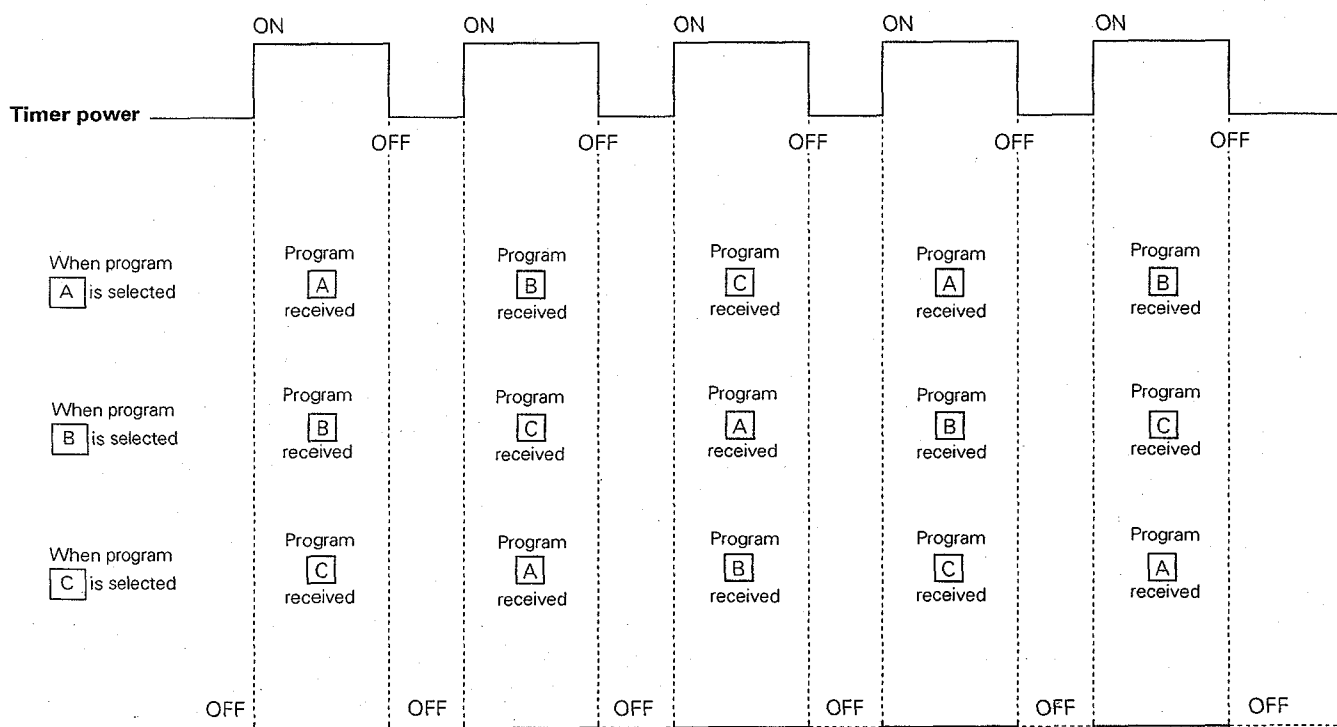


- Select from which program to receive.
- The display returns to the original display after about 5 seconds.

2 Set the timer.

- Leaving the tuner's POWER switch set to ON, turn off the AC power using the timer's power switch.
- The programmed stations are selected in sequence in accordance with the timer power ON/OFF operation as shown in the table below.

Station reception sequence according to timer ON/OFF operation



- The programmed stations are repeatedly received in the **A** - **B** - **C** sequence.

In case of difficulty

What appears to be a malfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Symptom	Cause	Remedy
No sound is heard.	<ul style="list-style-type: none"> The tuner is not connected to the amplifier. 	<ul style="list-style-type: none"> Use audio cords to connect the tuner to the amplifier.
Radio stations cannot be received.	<ul style="list-style-type: none"> No antenna is connected. The broadcast band is not set properly. The frequency of the desired station is not tuned. The signal detected by the antenna is weak. 	<ul style="list-style-type: none"> Connect an antenna. Set the broadcast band properly. Tune the frequency of the desired station. If located far from the broadcast station, install a dedicated FM outdoor antenna (5-8 elements).
No station is received when a numeric key is pressed.	<ul style="list-style-type: none"> No station is preset in the recalled channel. The preset memory was cleared because the power cord had been unplugged for a long period of time. 	<ul style="list-style-type: none"> Preset the desired station. Preset the station again.
Interference.	<ul style="list-style-type: none"> Noise due to ignition noise of an automobile. Noise due to an influence from an electric appliance. Noise due to a nearby TV set. 	<ul style="list-style-type: none"> Install the outdoor antenna apart from the road. Turn off the power of the appliance. Install the system more apart from the TV set.
Sound is distorted when the IF BAND is set to NARROW.	<ul style="list-style-type: none"> The broadcasted sound level is too high. 	<ul style="list-style-type: none"> Set the IF BAND to WIDE.

Notes:

- This system is microprocessor-controlled, so malfunction may occur due to external noise or interference noise. In such a case, unplug the power cord, plug it and turn power on again.
- Do not use contact cleaners because it could cause a malfunction. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

Strömbrytarens POWER beredskapsläge

Indikatorn STAND BY tänds efter nätkabelns anslutning till ett vägguttag, oavsett strömbrytarens POWER till/frånslag. Detta anger att en liten mängd ström leds till komponenten som stöd för minnesinnehållet. Detta läge kallas för beredskapsläget. Strömbrytaren på fjärrkontrollen kan användas för att slå på och av strömmen så länge indikatorn STAND BY lyser.

Virtanäppäimen (POWER) valmiustila (STAND BY)

Kun laitteen verkkojohto on liitetty pistorasiaan, valmiustilan merkkivalo syttyy riippumatta virtanäppäimen (POWER) asennosta (ON/OFF). Merkkivalo osoittaa, että laitteessa on hieman virtaa muistin sisältöjen ylläpitoa varten. Tätä tilaa kutsutaan valmiustilaksi. Kun valmiustilan merkkivalo (STAND BY) palaa, laitteen virta voidaan kytkeä ja katkaista kaukosäätimellä.

Afbrydertastens (POWER) STAND BY funktion

Når apparatets strømledning er tilsluttet en stikkontakt, lyser STAND BY indikatoren, uanset om der er tændt ved afbryderen på apparatet eller ej. Det angiver, at apparatet bliver forsynet med en ganske lille mængde strøm til opret-holdelse af hukommelsens indhold. Denne funktion kaldes STAND BY. Når STAND BY indikatoren er tændt, kan strømmen til apparatet slås till ofg fra med fjernstyringsenheden.

PÅ/AV-knappens Stand-by funksjon

Når strømledningen til dette anlegget er satt i en vekselstrømskontakt, vil STAND-BY indikatorlampen lyse enten PÅ/AV-knappen er på- eller avslått. Dette betyr at en viss mengde strøm tilføres anlegget slik at innholdet i minnet ikke går tapt. Denne funksjonen kalles Stand-by. Når indikatorlampen for STAND-BY er tent, kan strømmen slås PÅ/AV fra fjernkontrollen.

Specifications

FM tuner section

Reception frequency range 87.5 MHz ~ 108 MHz
Usable sensitivity (DIN at 75 Ω)
MONO 0.95 μ V/10.8 dBf
STEREO 35 μ V/42 dBf

Limiting level (DIN at 75 Ω) 0.64 μ V/7.3 dBf

Total harmonic distortion (DIN at 1 kHz)
MONO 0.009 % (85.2 dBf input) (WIDE)
STEREO 0.025 % (85.2 dBf input) (WIDE)

Signal to noise ratio (DIN weighted at 1 kHz)
MONO 83 dB (85.2 dBf input)
STEREO 76 dB (85.2 dBf input)

Stereo separation (DIN)
1 kHz 60 dB (WIDE)
6.3 kHz 50 dB (WIDE)

Capture ratio 1.5 dB (WIDE)
Selectivity (DIN \pm 300 kHz) 50 dB (WIDE)
(DIN \pm 200 kHz) 60 dB (NARROW)

Image rejection ratio (at 98 MHz) 90 dB
IF rejection ratio (at 98 MHz) 110 dB
Spurious rejection ratio (at 98 MHz) 100 dB
AM suppression ratio 68 dB
Sub carrier suppression (DIN) 76 dB (at 19 kHz)
70 dB (at 38 kHz)

Frequency response
(30 Hz ~ 15 kHz) +0.5 dB, -1.0 dB

Output level/impedance (FM at 1 kHz, 75 kHz dev.)
Fixed 0.8 V/600 Ω

MW tuner section

Reception frequency range 531 kHz ~ 1,602 kHz
Usable sensitivity 10 μ V/(300 μ V/m)
Signal to noise ratio
(at 30 % mod. 1 mV input) 50 dB

Total harmonic distortion 0.3 %
Image rejection ratio 37 dB
Selectivity 30 dB
Output level/impedance
(at 30 % mod. 1 mV input) 0.24 V/600 Ω

General

Power consumption 25 W
Dimensions W: 440 mm (17 - 5/16")
H: 98 mm (3 - 7/8")
D: 331 mm (13 - 1/16")
Weight (net) 4.5 kg (9.9 lb)

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.